

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

SEP 1 2 2014

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Ron Kensky, Plant Manager Gerdau Specialty Steel North America 3100 Brooklyn Road Jackson, Michigan 49202

Re: Notice of Violation and Finding of Violation under 42 U.S.C. § 7413(a)(1) and (a)(3)

Dear Mr. Kensky:

The U.S. Environmental Protection Agency is issuing the enclosed Notice of Violation and Finding of Violation (NOV/FOV) to Gerdau Specialty Steel North America (you) for violations of the Clean Air Act (the Act) identified at the facility located at 3100 Brooklyn Road, Jackson, Michigan (Facility). The NOV/FOV is issued in accordance with Sections 113(a)(1) and 113(a)(3) of the Act, 42 U.S.C. § 7413(a)(1) and (a)(3).

As explained in the NOV/FOV, the EPA finds that you have violated the Act, the Act's implementing regulations, and the Michigan State Implementation Plan (Mighican SIP) at the Facility. Section 113 of the Act, 42 U.S.C. § 7413, gives us several enforcement options to resolve these violations, including: issuing an administrative compliance order; issuing an administrative penalty order; and bringing a judicial civil action.

We are offering you an opportunity to confer with us about the violations alleged in the NOV/FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the NOV/FOV prior to the conference date.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contact in this matter is Alexandra Letuchy. You may call her at 312.886.6035 or email her at letuchy alexandra@epa.gov if you wish to request a conference. The EPA hopes that this NOV/FOV will encourage you to comply with the requirements of the Act and the Michigan SIP.

Sincerely,

Air and Radiation Division

Enclosure

Scott Miller, Manager cc:

Air Quality Division

Michigan Department of Environmental Quality

State Office Building, 4th Floor 301 E Louis Glick Highway

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5

IN THE MATTER OF:)
Gerdau Specialty Steel North America Jackson, Michigan) NOTICE OF VIOLATION and FINDING OF VIOLATION
) EPA-5-14-MI-09
Proceedings Pursuant to)
Section 113(a) and (a)(3) the)
Clean Air Act, 42 U.S.C.)
§ 7413(a)(1) and (a)(3))

NOTICE AND FINDING OF VIOLATION

The U.S. Environmental Protection Agency is issuing this Notice of Violation and Finding of Violation (NOV/FOV) to Gerdau Specialty Steel North America (Gerdau or you) to notify you that we have found violations of the Clean Air Act, 42 U.S.C. §§ 7401-7671q (CAA or the Act) and the Michigan State Implementation Plan (Michigan SIP) at the facility located at 3100 Brooklyn Road, Jackson, Michigan (Facility). The relevant statutory and regulatory background, factual background, notice and finding of violations, and environmental impact of these violations are set forth in detail below.

This NOV/FOV is issued in accordance with Section 113(a)(1) and (a)(3) of the Act, 42 U.S.C. § 7413(a)(1) and (a)(3), which authorize the Administrator to take certain enforcement actions after notifying a person that it is in violation of the Act. The authority to issue this NOV/FOV has been delegated by the Administrator to the Regional Administrator and re-delegated to the Director of the Air and Radiation Division for Region 5 of the EPA.

Relevant Statutory and Regulatory Background

National Emission Standards for Hazardous Air Pollutants

- 1. Section 112 of the Act, 42 U.S.C. § 7412(c), requires the EPA to promulgate a list of all categories and subcategories of new and existing "major sources" and "area sources" of hazardous air pollutants (HAP) and establish emissions standards for the categories and subcategories. These emission standards are known as the National Emission Standards for Hazardous Air Pollutants (NESHAP). The EPA codified these standards at 40 C.F.R. Parts 61 and 63.
- 2. On March 16, 1994, in accordance with Section 112 of the Act, 42 U.S.C. § 7412(c), EPA promulgated the NESHAP General Provisions, codified at 40 C.F.R. Part 63, Subpart A. 59 Fed. Reg. 12430.

- 3. "Major source" is defined as "any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants."

 42 U.S.C. § 7412(a)(1).
- 4. "Area source" is defined as "any stationary source of hazardous air pollutants that is not a major source." 42 U.S.C. § 7412(a)(2).
- 5. "Stationary source" is defined as "any building, structure, facility, or installation, which emits or may emit any air pollutant." 42 U.S.C. § 7411(a)(3).
- 6. "Hazardous air pollutant" is defined as "any air pollutant listed in or pursuant to" Section 112(b) of the Act. 42 U.S.C. § 7412(a)(6).
- 7. Section 112(i)(3) of the Act, 42 U.S.C. § 7412(i)(3), prohibits any person subject to a NESHAP from operating a source in violation of a NESHAP after its effective date. See also 40 C.F.R. §§ 61.05 and 63.4.
- 8. 40 C.F.R. § 63.6(h)(5)(i) states that when a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall, for the purpose of demonstrating initial compliance, conduct opacity or visible emission observations concurrently with the initial performance test required under § 63.7, unless certain conditions are met.
- 9. 40 C.F.R. § 63.6(h)(5)(i)(B) states that if visibility or other conditions prevent the opacity or visible emission observation from being conducted concurrently with the initial performance test required under § 63.7, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter. Rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 63.7.
- 10. 40 C.F.R. § 63.6(h)(6) states that the owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made.
- 40 C.F.R. § 63.6(e)(1)(i) provides that the owner or operator must operate and maintain an affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions at all times.
- 12. 40 C.F.R. § 63.9(h) provides requirements for submitting notification of compliance status when an affected source becomes subject to a relevant standard and states that the notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard.

The NESHAP for Electric Arc Furnace Steelmaking Facilities

- Pursuant to Section 112 of the Act, the EPA promulgated the NESHAP for Electric Arc Furnace (EAF) Steelmaking Facilities (NESHAP Subpart YYYYY) at 40 C.F.R. Part 63, Subpart YYYYY, 40 C.F.R. §§ 63.10680 63.10692, on December 28, 2007. 72 Fed. Reg. 74111.
- 14. The NESHAP Subpart YYYYY applies to owners and operators of an electric arc furnace steelmaking facility that is an area source of hazardous air pollutant (HAP) emissions. 40 C.F.R. § 63.10680(a).
- 15. 40 C.F.R. § 63.10680(b)(1) states that the affected source is each EAF steelmaking facility. An affected source is existing if you commenced construction of the affected source on or before September 20, 2007.
- 16. 40 C.F.R. § 63.10681(a) states that the compliance date for an existing affected source is June 30, 2008.
- 17. 40 C.F.R. § 63.10681(b) provides that if you own or operate an existing affected source, you must achieve compliance with opacity limit in § 63.10686(b)(2) or (c)(2) by no later than December 28, 2010 if you demonstrate to the satisfaction of the permitting authority that additional time is needed to install or modify emission control equipment.
- 18. 40 C.F.R. §63.10685(a) states that for the control of chlorinated plastics, lead, and free organic liquids contaminants in metallic scrap utilized in the EAF at your facility, you must comply with the requirements in either the pollution prevention plan requirements in paragraph (a)(1) or the restricted metallic scrap requirements in paragraph (a)(2) of this section.
- 19. 40 C.F.R. § 63.10685(b) provides that for the control of mercury in scrap containing motor vehicle scrap, you must procure the scrap pursuant to one of the compliance options in paragraphs (b)(1), (2), or (3) for each scrap provider, contract, or shipment.
- 20. 40 C.F.R. § 63.10685(b)(1) requires that you: (i) include a requirement in your scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap; (ii) prepare and operate according to a site-specific plan for removal of mercury switches; (iii) require each motor vehicle scrap provide to provide an estimate of the number of mercury switches removed from motor vehicle scrap sent to you facility during the previous year and the basis for the estimate; (iv) establish a goal for each scrap provide to remove at least 80% of the mercury switches; and (v) submit semiannual progress reports to the permitting authority that contains the quantity of mercury switches, the number of vehicles processed, and an estimate of the number of mercury switches removed.
- 21. 40 C.F.R. § 63.10685(b)(2) requires that you certify in your notification of compliance status that you participate in and purchase motor vehicle scrap only from scrap provides who participate in a program for removal of mercury switches that has been approved by the Administrator.

- 22. 40 C.F.R. § 63.10685(c)(3) provides that you must submit semiannual compliance reports to the Administrator for the control of contaminants from scrap according to the requirements in § 63.10(e). The report must clearly identify any deviation from the requirements in paragraphs (a) and (b) of this section and the corrective action taken. You must identify which compliance option in paragraph (b) of this section applies to each scrap provider, contract, or shipment.
- 23. 40 C.F.R. § 63.10686(b)(2) provided that you must not discharge or cause the discharge into the atmosphere from an EAF any gases which exit from a melt shop and, due solely to the operations of any affected EAF(s), exhibit six percent opacity or greater.
- 40 C.F.R. § 63.10690(b) provides that the notification of compliance status required by § 63.9(h) must include each applicable certification of compliance, signed by a responsible official, in paragraphs (b)(1) through (6) of this section. These paragraphs include pollution prevention plan requirements, restriction on metallic scrap requirements, mercury requirements, capture system requirements, and monitoring requirements.

Gerdau's Title V Permits

- 25. The Michigan Department of Environmental Quality (MDEQ) issued a Renewable Operating Permit, No.: MI-ROP-B4306-2009 (Title V Permit), to the Facility on November 20, 2009.
- 26. Condition A. General Conditions. 10. of the Title V Permit states that any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law.
- 27. Condition D. Flexible Group-EAF/LMF/VAD.1. 3, 4, 7, 11, 13, 15, and 17 of the Title V Permit provides emission limits for particulate matter (PM-10), nitrogen oxides (NOx), volatile organic compounds (VOC), lead (Pb), manganese (Mn), and mercury (Hg).
- 28. Condition D. Flexible Group-EAF/LMF/VAD.IV. of the Title V Permit states that the permittee shall not operate the Flexible Group-EAF/Ladle Metallurgical Furnace/Vacuum Arc Degasser (FG-EAF/LMF/VAD) unless Baghouse No. 3 (DV-BH03) is installed and operating properly.
- 29. Condition D. Flexible Group-EAF/LMF/VAD.V.l. of the Title V Permit states the permittee shall conduct a performance emission test for PM-10, NOx, VOC. Pb, Mn, and Hg emission rates once every five years. The PM and metals performance test(s) shall—run simultaneously. The permittee shall obtain a sample of baghouse hopper dust during each of the stack test runs. The samples shall be analyzed to determine the concentration or percentage of Pb, Mn, and Hg in the baghouse hopper dust.
- 30. Condition D. Flexible Group-EAF/LMF/VAD.VI.5, of the Title V Permit states that permittee shall monitor the pressure drop across the DV-BH03 on a continuous basis.

- Condition D. Flexible Group-EAF/LMF/VAD.IX.2. of the Title V Permit requires that the baghouse operational inspections are performed at the baghouse as described in the Malfunction Abatement Plan (MAP). Records are maintained to document the daily inspection and required maintenance.
- 32. Condition D. Flexible Group-EAF/LMF/VAD.IX.3. states that the pressure drop range indicative of proper operation is between 2.5 and 15 inches of water ("W.C.) and requires that baghouse operational inspections are performed at the baghouse according to the MAP.
- Condition D. Flexible Group-FG-Facility.III.1. states that the permittee shall not operate FG-Facility unless the MAP and maintenance procedures and schedules for FG-EAF/LMF/VAD, including control equipment, and all monitoring and recording equipment approved in writing by the AQD District Supervisor, is implemented and maintained.

Relevant Factual Background

- 34. Gerdau owns and operates a steel mill facility located at 3100 Brooklyn Road, Jackson, Michigan (the Facility).
- 35. On August 15, 2012, the EPA conducted an inspection at the Facility.
- 36. On December 20, 2012 and on December 9, 2013, the EPA issued information requests to Gerdau pursuant to Section 114 of the Act, 42 U.S.C. § 7414 (the information requests).
- 37. Gerdau provided a response to the information requests on April 2, 2013, January 31, 2014, and February 28, 2014.

Gerdau provided emissions testing reports for various pollutants tested at the EAF or EAF/Ladle Metallurgical Furnace (LMF)/Vacuum Arc Degasser (VAD) from 1999 to the present. The table below summarizes the pollutants tested and the dates of each performance test:

	1				Date				
Pollutants Tested	7/13- 14/99	12/14- 17/04	06/1- 2/05	1/31/06 — 2/1/06	3/20- 21/07	3/26- 27/08	1/19- 20/11	6/8- 9/11	8/3/11
SO ₂		X		X		<u> </u>			
NOx .	<u>.</u>	X	j'				-		
co		X	X						
VOC		X	X	-					
Hg		X		X	X	X			
Mn .	X	X		X	X	X _			
Pb	X	X							
As _	X	X		X					
Cd	X	X		X					
Cr	X								
Ni	X		,						
Zn	X								1
PM		X		X	X	X	X	X	
TSP .	X								
PM-10	X	X							
Opacity	X	X						X	X

NESHAP Finding of Facts

- 39. Gerdau did not submit semiannual compliance reports to EPA for the second half of 2009 and the first and second half of 2010.
- 40. An October 2, 2009 Staff Report Addendum from MDEQ states that the Facility received an extension until December 28, 2011 to comply with the opacity requirements in the NESHAP Subpart YYYYY.
- 41. The June 8 9, 2011 PM emissions testing and concurrent opacity observations showed that the highest six minute opacity melt shop reading during the test was 8.3%.
- 42. For the August 2-3, 2011 rescheduled opacity observation, Gerdau did not submit records of operating conditions under which the visual observations were made.

43. Gerdau did not submit a Notification of Compliance Status with NESHAP Subpart YYYYY to EPA.

Title V Finding of Facts

- 44. Gerdau did not perform baghouse hopper dust analysis concurrent to the emissions testing for PM on March 26 and 27, 2008, January 2011, and June 8 9, 2011.
- 45. In response to the information requests, Gerdau provided a table with an analysis of pressure drop data points. The table showed that in the time period November 2009 through January 2013, Gerdau failed to continuously monitor the pressure drop across DV-BH03 controlling emissions from EU-EAF-01, EU-EAF-02, EU-LMF, and EU-VAD for 659 hours, or approximately 2% of the time.
- 46. In response to the information requests, Gerdau provided pressure drop data points from August 2006 through December 2012 for DV-BH03. The table below summarizes the number of data points recorded that deviated from the acceptable pressure drop expressed as a percentage.

Year	Less than 2.5" W.C.	Greater than 15" W.C.
2009 (Nov – Dec)	64.3%	0%
2010	26.0%	3.4%
2011	15.2%	0% .
2012	17.1%	0%

47. Gerdau's MAP includes a Preventative Maintenance Summary with a table describing what elements are to be checked during Daily Inspection, Monthly Inspection, Quarterly Inspection, Semi-Annual Inspection, and Annual Inspection requirements for DV-BH03. The table below summarizes the missed or late inspections:

	Missed Inspection	Late Inspections
Monthly	November 2009, February 2010, August 2010, October 2010, May 2011, July 2011, November 2011, January 2012, July 2012, September 2012, November 2012	June 2010
Quarterly		Q2 2011 ·
Semiannual		1H 2011, 1H 2012
Annual	2010, 2011, 2012	

- 48. The MAP states that in the event that one of the three main DV-BH03 fans fail, the melt shop may continue operations until repairs are made, and daily melt shop visible emission readings will be conducted to determine if the EAF can continue to operate or should be shut down prior to the next scheduled outage.
- 49. On April 14, 2011, one fan failed on the DV-BH03.
- 50. Gerdau performed Method 9 opacity readings at the DV-BH03 on April 14, 2011. Gerdau's daily visible emission logs (non method 9) did not contain visible emissions readings at the melt shop or the caster for April 14, 2011.
- 51. NTH Consultant, Ltd. conducted an engineering study on September 16 and 17, 2010 to evaluate roof monitor opacity at the Gerdau facility performed under a three fan operation and a two fan operation.
- 52. During the September 17, 2010 two fan test, emissions were noted at the melt shop roof monitor and it was reported that smoke inside the melt shop was interfering with the view of the crane operator. Six-minute opacity averages were not calculated. The test report concluded that the facility could not meet the NESHAP Subpart YYYYY six percent opacity limit when operating two baghouse fans on DV-BH03.

Notice and Finding of Violations

<u>Violations of the General Provisions and NESHAP for Electric Arc Furnace Steelmaking</u> Facilities

- By operating the EU-EAF01, EU-EAF02, EU-LMF, and EU-VAD when one of the baghouse fans was down and failing to do opacity readings at the melt shop and the caster, Gerdau violated the good air pollution control practices provision at 40 C.F.R. § 63.6(e)(1)(i).
- 54. By failing to submit the semiannual compliance reports for the second half of 2009 and the first and second half of 2010, Gerdau violated reporting requirements at 40 C.F.R. § 63.10685(c).
- 55. By exceeding the opacity limit during the June 8 9, 2011 PM emissions testing and concurrent opacity observations, failing to reschedule opacity observations in 30 days, and failing to produce operating conditions during the August 2 3, 2011 opacity observations, Gerdau has failed to demonstrate compliance with the opacity limit at 40 C.F.R. § 63.10686(b)(2) from December 28, 2011, to the present.
- 56. By failing to submit a Notification of Compliance Status, Gerdau violated the notification requirements at 40 C.F.R § 63.10690.

Violations of the Title V Permits

- By failing to conduct the performance emission test for SO₂, NOx, VOC. Hg, Mn, Pb, and PM-10 every five years, Gerdau has violated Condition D. Flexible Group-EAF/LMF/VAD.V.1 of the Title V Permit and failed to demonstrate compliance with the emission limits in Condition D. Flexible Group-EAF/LMF/VAD.I.3, 4, 7, 11, 13.
- 58. By failing to sample the baghouse hopper dust during PM emissions tests on March 26 and 27, 2008, January 19 20, 2011, and June 8 9, 2011, Gerdau has violated the baghouse hopper dust sampling requirements at Condition D. Flexible Group-EAF/LMF/VAD.V.1. of the Title V Permit.
- By failing to continuously monitor the pressure drop across DV-BH03. Gerdau has violated the pressure drop monitoring requirements at Condition D. Flexible Group-EAF/LMF/VAD.VI.5., Condition D. Flexible Group-EAF/LMF/VAD.IX.1., and Condition D. Flexible Group-EAF/LMF/VAD.IX.2. of the Title V Permit.
- 60. By deviating from the acceptable pressure drop across DV-BH03 in the Title V Permit and the MAP, Gerdau has violated air cleaning device maintenance and operation requirements at Condition A. General Conditions.10., the monitoring requirements at Condition D. Flexible Group-EAF/LMF/VAD.IV.5, and the MAP requirements at Condition D. Flexible Group-FG-Facility.III.1. of the Title V Permit.
- 61. By failing to perform the required baghouse inspections, Gerdau violated baghouse inspection requirements at Condition D. Flexible Group-EAF/LMF/VAD.IX.2. 3. and MAP requirements at Condition D. Flexible Group-FG-Facility.III.1.
- 62. By operating the EU-EAF01, EU-EAF02, EU-LMF, and EU-VAD when one of the baghouse fans was down and failing to do opacity readings at the melt shop and the caster during the incident, Gerdau violated the MAP requirements at Condition D. Flexible Group-FG-Facility.III.1. of the Title V Permit.

Environmental Impact of Violations

- 63. The Company's violations of the above-referenced NESHAPs and Title V Permit potentially have caused excess emissions of PM. Particulate matter, especially fine particulates contains microscopic solids or liquid droplets, which can get deep into the lungs and cause serious health problems. Particulate matter exposure contributes to:
 - irritation of the airways, coughing, and difficulty breathing;
 - decreased lung function;
 - aggravated asthma;
 - chronic bronchitis;
 - · irregular heartbeat;
 - nonfatal heart attacks; and
 - premature death in people with heart or lung disease.

Date

George P. Ozerniak

Director

Air and Radiation Division

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, No. EPA-5-14-MI-09, by Certified Mail, Return Receipt Requested, to:

Ron Kensky, Plant Manager Gerdau Specialty Steel North America 3100 Brooklyn Road Jackson, Michigan 49202

I also certify that I sent copies of the Notice of Violation and Finding of Violation by first-class mail to:

Scott Miller, Manager
Air Quality Division
Michigan Department of Environmental Quality
State Office Building, 4th Floor
301 E Louis Glick Highway
Jackson, Michigan 49201

On the 18 day of September 2014.

CERTIFIED MAIL RECEIPT NUMBER: 7009 1680 0000 7676 2021